

Letter 14



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BUREAU OF LAND MANAGEMENT
BATTLE MOUNTAIN FIELD OFFICE

May 4, 2001

*Protecting
Communities
and the
Environment*

RE: Phoenix Project Draft Environmental Impact Statement:

Dear Ms. Jarnecke:

These are the comments of Mineral Policy Center (MPC) on the Draft Environmental Impact Statement (DEIS) for the proposed Phoenix Project. Mineral Policy Center is a national non-profit organization that works with individuals and organizations throughout the country to reduce the negative social, economic, and environmental impacts associated with hard-rock mining. We submitted scoping comments on the Phoenix Project, attended a public meeting, and appreciated the opportunity to provide these comments on the DEIS.

14-1

The Phoenix Project site is clearly a very disturbed and problematic one. It is obvious from the DEIS that the inherent risks imposed by the site on the waters of the state and U.S., as well as the other public resources in the area, are clearly recognized by both Newmont and the BLM. Initially, we were of the mind that the proposed project would allow the remediation of a problem site in a manner that would also allow for the economic extraction of metals. It is now apparent that the site is so problematic that further mining to anywhere near the extent proposed will only exacerbate the serious and irrefutable risks to public resources. It is also clear that the site at present is in violation of numerous laws and regulations and the BLM by statutory mandate must immediately cause Newmont to rectify the situation.

14-2

MPC does not know the site well enough to suggest a manner in which the site should be handled, therefore we rely on the BLM and Newmont to fully and adequately manage the site so as to immediately stop all ongoing violations as well as prevent all future ones.

14-3

MPC therefore concludes that the current proposal will neither protect either surface or ground water from pollution that will violate the Clean Water Act and Nevada Pollution Control Act. It will also illegally cause nearby streams and springs to go dry. Drying streams and tributary springs also violates the Clean Water Act. The project will further affect the groundwater balance in the region by decreasing the recharge in the region which is partly responsible for the extent of the dewatering impacts. Tailing deposition in drainages is also illegal. There is also substantial evidence that the bond is insufficient and that Newmont does not have the financial resources to complete this project while protecting the other resources. For these reasons, the project as proposed will cause undue or unnecessary degradation and may not be permitted. MPC further concludes that the No Action alternative is also illegal because it will result in groundwater degradation. Therefore, an alternative that both

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14-1 As discussed in the EIS (Section 2.3), current site conditions are being managed under several regulatory programs. In particular, pursuant to a state water pollution control permit, the NDEP has established a compliance schedule, which requires the submittal of work plans prescribing requirements for assuring compliance with applicable environmental standards. Please also see the response to comment 13-5.

14-2 Comment noted.

14-3 The BLM believes that the Proposed Action, with appropriate mitigation would not violate federal or state water quality laws. The Proposed Action contains several components that would protect and improve ground water and surface water quality and would address many current site conditions. As mitigated, the BLM does not believe that the Proposed Action would cause unnecessary or undue degradation. The BLM would require that appropriate financial sureties are in place prior to project startup to ensure that all required mitigation and reclamation requirements are satisfied. Consistent with the BLM's regulatory obligations, those requirements would be included as a condition to a Record of Decision approving the Phoenix Project. Please also see the responses to comments 3-4, 13-30, and 13-41.

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- 14-3 treats the contamination problems and reclaims the existing disturbance is desirable. The final EIS must include a project that will protect the waters of the state and U.S.
- 14-4 Mineral Policy Center borrowed from parts of drafts of letters from Great Basin Mine Watch, Sierra Club, and Western Shoshone Defense Project, in the preparation of this letter. We also hereby reference and incorporate into this letter in total the letters from Great Basin Mine Watch, Sierra Club, and Western Shoshone Defense Project. While we acknowledge the contributions from these other commenters, these comments are solely the responsibility of Mineral Policy Center. All references are to the DEIS.
- 14-5 **The BLM should immediately initiate enforcement actions against Newmont/BMG**
 As noted herein and in the DEIS, the current operations at the site (the continuation of which is referred to as the No-Action Alternative) violate a number of state surface and ground water standards. These violations not only constitute "unnecessary or undue degradation" under both the "old" and "new" 3809 regulations, they are also a violation of the current Plan of Operations which was originally approved with the condition that the operations would always comply with these standards.
 FLPMA requires that, "[i]n managing the public lands the Secretary shall, by regulation or otherwise, take any action necessary to prevent unnecessary or undue degradation of the lands." 43 USC § 1732(b). In the context of the FLPMA, when the imperative language "shall" is used, "Congress [leaves] the Secretary no discretion" in how to administer the Act. Natural Resources Defense Council, Inc. v. Jamison, 815 F. Supp. 454, 468 (D.D.C. 1992).
 Since the BLM has acknowledged that the current operations are violating water quality standards, it must take immediate actions to rectify the problems. The BLM does not have discretion to stand aside and permit the violations, and by definition, unnecessary or undue degradation, to occur. The federal courts are clear that the "shall prevent unnecessary or undue degradation" requirement from FLPMA is a **mandatory** duty upon the BLM. Sierra Club v. Hodel, 848 F.2d 1068, 1074-1076 (10th Cir. 1988)(overturning lower court decision that said that FLPMA's "shall prevent ..." was discretionary).
 Therefore, Mineral Policy Center formally requests that the BLM "take any action necessary" to "prevent" the further release of water from mine facilities, lands, and operations that exceed any water quality standard. At a minimum, this must entail an immediate noncompliance order and demand for immediate corrective action. If the violations are not stopped, a suspension of any operation causing or contributing to the violations must be ordered. Even if BLM believes that it has discretion in its decision whether to take immediate enforcement action under the new 3809 rules, the severity of the problem demands such action.
- 14-6 **The Project is and will continue to degrade waters of the state:**
 1. This site currently has and continues to degrade both surface and groundwater. The DEIS contains a lot of documentation of degraded conditions:
 Arsenic concentrations exceeded the drinking water standard of 0.05 milligram per liter in a number of samples and did not show a strong dependence on pH as did the other metals. Specific instances of arsenic exceedences occurred in ground water from Copper Canyon, the current Reona Leach Pad, the Fortitude Pit, Galena Canyon, the Midas Pit, the proposed Phoenix Pit, the proposed Reona Pit, and the West Copper Pit. (Page 3.2-32)

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- 14-4 Comment noted. Please see the responses to comment letters 11, 13, and 15.
- 14-5 Please see the responses to comments 13-5 and 14-1.
- 14-6 Please see the responses to comments 13-4, 13-5, and 14-1.

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- Iron concentrations were highest in ground water samples from the Copper Leach Area and the Midas Pit, reaching 1,500 and 180 milligrams per liter, respectively. However, groundwater samples throughout the study area had iron concentrations that exceeded the secondary drinking water standard of 0.6 milligram per liter... (Page 3.2-34)
- Manganese concentrations show a pattern similar to iron, reaching their highest level of 190 milligrams per liter at the Copper Leach Area and show widespread exceedences of the secondary drinking water standard of 0.1 milligram per liter over the entire study area... (Page 3.2-34)
- The most acidic surface waters occurred adjacent to historic mining facilities and mineralized areas (e.g., Iron Canyon and Butte Canyon)... These surface waters also had the highest metal concentrations. In general, the metal concentrations in these springs and seeps exceed drinking water standards for antimony, arsenic, beryllium, cadmium, copper, chromium, fluoride, iron, magnesium, manganese, mercury, nickel, nitrate, pH, sulfate, total dissolved solids, and zinc. (Page 3.2-18)
- 14-6
- 14-7 2. The vast majority of rock at the site will produce acid drainage ("these results indicate that the majority of the rocks in the pit wall surfaces and waste rock have the potential to generate acid." Page 3.2-35). Further, "no new rock types have been encountered that significantly alter the findings obtained from the existing data. The deeper rocks...are predominantly net acid-generating....Additional testing would not alter the primary finding that the rocks to be disturbed are predominately net acid-generating." (Page 3.2-35).
- 14-8 3. While the DEIS attempts to downplay the reality of groundwater pollution now and in the future ("there is a potential for leachate generated to eventually impact ground water quality." Page 3.2-57), the clear reality is that there is existing and will continue to be groundwater pollution from this site unless BLM and NDEP take strong action. Indeed, it is loosely predicted (a much fuller account of this work must be included in the FEIS) that groundwater pollution may exist from the site for over 1000 years. (Page 3.2-56)
- 14-9 4. Given the extreme acid generating potential of the site, there are some very problematic proposals suggested. On page 2-11 it states that "Only material that exhibits a **net neutralization potential equal to or greater than zero** would be used as cover material or growth medium for waste rock facilities." (emphasis added) On page 2-24 it states that "Proposed mining of the ore bodies would expose transitional and sulfide bearing ores and waste rock that potentially could generate acid.....These rock units are **visually distinguishable** from other rock types, **making field identification possible**. BMG **proposes** to conduct net acid-generating analyses on blast hole samples.... These analyses **would be used to determine a particular rock's chemical nature upon final placement**." (emphasis added) What this implies is that truck drivers and scoop operators will look and see what the rock looks like in order to determine its acid generating capacity. In addition, the use of a NNP of equal or greater than zero clearly does not meet the BLM Acid Rock Drainage Policy that uses a ratio of 3 to 1. The entire Proposed Action section (Sec. 2.4) must be completely rewritten so as to accurately reflect the BLM standards.
- 14-10 5. Given the extreme acid generating rock at the site, the treatment of tailings piles must be similar to waste rock piles. The use of 2 foot covers for the tailings must be assumed to be

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- 14-7 Comment noted.
- 14-8 As discussed in the EIS (Section 2.3.1) and in the responses to comments 13-5 and 14-1, current site conditions are being managed under the appropriate regulatory programs. Several aspects of the Proposed Action are designed specifically to address and improve certain site conditions that have resulted from historic mining activities in the area. As part of any approved action, the BLM would require implementation of appropriate measures, such as the Contingent Long-term Groundwater Management Plan, to ensure the protection of ground water resources.
- 14-9 As described in Section 8.1 of the Waste Rock Management Plan (Brown and Caldwell 2000d), testing of blasthole cuttings samples would be conducted using a 24-hour reporting deadline during mining to provide data that would be used, together with visual observations, to determine the characteristics and placement of waste rock. The BLM criterion of an ANP:AGP ratio greater than 3:1 is used to identify rocks that require kinetic testing to further characterize their actual acid generating properties (BLM 1997). Please also see the response to comment 1-16 for a description of how the criterion for segregation of potentially acid-generating and neutral waste rock was developed.
- 14-10 A thicker cap is proposed for the unlined waste rock facilities because they are located at higher elevations with higher precipitation and potential net infiltration rates. In addition, in contrast to the unlined waste rock facilities, the tailings facilities would be constructed with geosynthetic liners that would serve to substantially restrict the seepage of leachate from the tailings facilities.

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- 14-10 insufficient when a 5 foot cover is suggested for the waste rock piles. If there is strong and credible evidence to the contrary, it must be included and not assumed.
- 14-11 6. MPC does not believe that the current plan to backfill the pits with the most acid generating rock, and then allow the pits to flood, will prevent serious long term groundwater contamination. One strong possibility from such an action is that a very contaminated plume of groundwater will be produced from these backfilled pits that will serve as long-term sources of groundwater pollution. The oxidation of the materials will have begun before the inundation, and the water that inundates the pits will not be completely anoxic. The possibility of creating a massive hidden and virtually untreatable groundwater pollution plume is too large to permit.
- 14-12 7. The argument that flooding the waste rock with groundwater will stop oxidation is fallacious unless the pit will reach a steady state condition. Groundwater observations at this site show that levels may change by up to 160 feet depending on climatic conditions. Backfilled waste rock will be intermittently submerged which may be the worst thing that could happen as far as concerns AMD.
- 14-13 8. MPC is not sure how the site can be successfully mined and managed so as to prevent further contamination of surface and ground waters. The DEIS and the use of only one real alternative (and the illegality of the No Action Alternative) is grossly insufficient. BLM and Newmont must develop a well documented and complete plan for remedying the current pollution from the site, as well as preventing (not merely inhibit, as stated on pages 2-11 and elsewhere) further pollution.
- 14-14 9. The alternatives for waste rock handling that were considered but eliminated from detailed analysis (Sec. 2.5.2) must be re-examined and added to. The current proposed action, as well as the no-action alternative do not meet BLM's statutory requirement to not allow undue or unnecessary degradation and to permit only those actions that will meet all federal and state laws and regulations. Alternate cover types, rock storage options, pit management options (such as allowing pit lakes to form and requiring treatment in perpetuity), must be fully analyzed.
- 14-15 10. **The probability that some form of water treatment, from waste rock facilities, heap leach piles, and pits, will be required in perpetuity is extremely high. Therefore BLM must ensure adequate financial surety to handle the extreme uncertainty of successful management options, and the high probability of both surface and ground water control and treatment needs. Given the extreme acid generating potential of the site's rock material, any allowance on future mitigation plans must be bonded to the highest level of possible need.**
- 14-16 11. The retention and discharge of stormwater represents an illegal discharge into a water of the U.S. The DEIS describes a method for capturing seepage at the base of waste rock dumps to prevent it from reaching surface water sources. (Pages 3.2-60,61) This would include the development of retention ponds. The DEIS fails to describe whether these ponds would be lined. Capturing acidic surface runoff only to allow it to seep into formations that run parallel to the drainage and to eventually possibly seep into the surface drainage defeats the purpose of retaining the seepage. The plan would also allow for "any treated water not put to beneficial use" to be "discharged at a location downgradient and/or without a connection (sic) to waters of the U.S." (Page 3.2-61) From this statement, it is unclear where it would be discharged. If it would be discharged into Iron Canyon, *a NPDES permit would be required.*

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- 14-11 The amendment of submerged pit backfill with neutralizing and reducing material would minimize the impact of the pit backfill on downgradient ground water quality. The Contingent Long-term Groundwater Management Plan (Brown and Caldwell 2000c) provides additional assurance that oxidation products that might migrate from the backfilled pits would be captured.
- 14-12 Please see the response to comment 13-24.
- 14-13 As documented in the EIS (Section 2.5), the BLM did consider a broad range of potential alternatives. Those alternatives were evaluated to determine whether they would be environmentally preferable. Alternatives suggested in comments on the Draft EIS have been further evaluated and addressed in those responses. The BLM has considered numerous mitigation measures that it believes would protect the environment and avoid unnecessary or undue degradation. Appropriate mitigation requirements would be included in a BLM Record of Decision. Please also see the response to comment 13-48.
- 14-14 The BLM believes a reasonable range of alternatives was identified and analyzed in the EIS. The BLM also believes the rationale was adequate for the elimination of the alternatives identified in Section 2.5.2 of the Draft EIS. Please also see the responses to comments 1-7, 1-8, 1-9, 13-6, 13-45, 13-52, 15-2, and 15-4 regarding other suggested alternatives.
- 14-15 It is the conclusion of the BLM, with all of the supporting analyses, that there is the potential for long-term impacts to water quality after reclamation. To address these potential impacts, BMG, at the BLM's request, developed the Contingent Long-term Groundwater Management Plan (Brown and Caldwell 2000c) to monitor, capture, and treat affected water, and developed the long-term financial assurance to provide sufficient funds if implementation is needed, in accordance with 43 CFR §3809.552 (c). Please also see the response to comment 1-5 regarding cost assumptions.
- 14-16 Please see the response to comment 13-27.

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- 14-16 Perhaps the confusion is caused by the questions regarding whether Iron Canyon remains a "waters of the U.S." after the Supreme Court decision in Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers, et al.¹. DEIS at 3.4-6. A reading of Solid Waste Agency should eliminate the confusion. It merely affects the Migratory Bird Rule wherein the Corps was regulating isolated wetlands only because they were used by migratory birds. 51 Fed. Reg. 41217. "Permitting respondents (Corps of Engineers) to claim federal jurisdiction over **ponds and mudflats** falling within the "Migratory Bird Rule" would result in a significant impingement of the States' traditional and primary power over land and water use." Solid Waste Agency, at 13, emphasis added. Iron Canyon is a channel that eventually drains to the Reese River and on to the Humboldt River. There is nothing isolated about this nor is it a pond or mudflat. It is certainly not a wetland formed in a human-made gravel pit, as was the case in Solid Waste Agency.
- The fact that the canyon is ephemeral or intermittent is also irrelevant. In justifying their authority to regulate such discharges, the Corps published: "An ephemeral stream is a water of the United States, provided it has an OHWM (ordinary highwater mark). An ephemeral stream that does not have an OHWM is not a water of the United States. The frequency and duration at which water must be present to develop an OHWM has not been established for the Corps regulatory program.... We agree that ephemeral streams that are tributary to other waters of the United States are also waters of the United States, as long as they possess an OHWM. The upstream limit of waters of the United States is the point where the OHWM is no longer perceptible." 65 Fed. Reg. 12823. Iron Canyon certainly has a high water mark and is a water of the U.S. Any discharge to it requires a NPDES permit. Without such a permit, with every discharge Newmont will be violating the CWA.

Dewatering issues:

- 14-17 1. The use of guzzlers to mitigate the loss of perennial or even ephemeral springs is insufficient. In an arid area such as central Nevada, springs are critical ecological features for much more than wildlife that can make use of guzzlers. There are a host of plant and animal species (such as invertebrates) which exist in such environments only due to the presence of springs and whose needs will not be adequately met by guzzlers.
2. The BLM cannot authorize the degradation or appropriation of Public Water Supplies. As noted herein in these comments, the DEIS admits that a number of perennial springs and waterholes will be eliminated or severely degraded by groundwater pumping and drawdown. Many of these springs or waterholes are reserved for public use by Public Water Reserve No. 107 (Executive Order of April 17, 1926). According to the IBLA:
- 14-18 Assuming that the water is a spring and is on public land it would be subject to the Executive Order of April 17, 1926, establishing Public Water Reserve No. 107. The Executive Order withdrew all springs and water holes on public lands and the surrounding acreage [smallest legal subdivision or all lands within one quarter mile for unsurveyed lands]. It was designed to preserve for the general public lands containing water holes and other bodies of water needed or used by the public for water purposes.

Desert Survivors, 80 IBLA 111, 115 (1984).

¹No. 99-1178 Jan. 9, 2001

14-17 Please see the response to comment 11-3.

14-18 Please see the response to comment 13-33.

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- 14-18 Under this Executive Order, the BLM cannot authorize activities that will impair the public use of any of those waters. In this case, the BLM's approval of dewatering and other activities that could dry up any springs or waterholes on public land would be illegal. This is especially true since the DEIS admits that many of these springs are currently used for stockwatering and other public purposes. Therefore, the BLM can only approve operations that will protect the water levels and uses of these springs. It should be noted that this withdrawal is still valid and was not rescinded by FLPMA.
- In addition, this Executive Order prevents Newmont/BMG from appropriating any of the reserved waters. These waters are held pursuant to a federal reserved water right and can only be used for the purposes of the reservation – i.e. public watering uses. See Cappaert v. United States, 426 U.S. 128, 145 (1976)(federal reserved water rights derive from federal reservations, and "are not dependent upon state law or state procedures"). Removing the water from these springs as a result of the groundwater withdrawals and dewatering is prohibited. The BLM can only approve an alternative that avoids interfering with these federal reserved water rights.
- The DEIS is incomplete:**
- The DEIS is incomplete in a number of areas:
- 14-19 1. The proposal does not include any discussion of mercury emissions from the proposed project. Since mercury is found in the ore, and since during various stages of the milling process mercury can and often is released into the atmosphere, a complete discussion of mercury emissions must be included.
 - 14-20 2. The proposed management of tailings fluid drain down must be included. Section 2.4.21.7 gives several generalized options. The FEIS must not rely upon such vague and unspecified plans to deal with an illegal pollution of groundwater.
 - 14-21 3. The proposed management of heap drain down must be included. Section 2.4.21.8 merely refers to the incomplete and vague options for tailings drain down to handle this likely toxic release to groundwater.
 - 14-22 4. There is no discussion of potential for roadways and other ancillary disturbances to cause acid drainage. It is well documented from many sites throughout the world that such disturbances can be significant sources of acid and contaminants. The FEIS must include a complete plan to prevent acid generation and surface or ground water pollution from all roads, pipeline, or other ancillary disturbances.
 - 14-23 5. The FEIS must include more complete discussion of the monitoring plans, merely referencing the Waste Rock Management Plan (Sec. 2.4.21.16) is not sufficient.
 - 14-24 6. Due to the extreme likelihood of pollution impacts to waters of the state from backfilled pits, the heap leach pad, the tailings disposal areas, and waste rock facilities, a complete discussion and description of the monitoring and mitigation plans must be included. Merely stating that "(S)ample points and a monitoring schedule would be coordinated between BMG, the BLM, and NDEP." (Sec. 2.4.21.16) is insufficient.
 - 14-25 7. The "periodic" (Sec. 2.4.23) sampling of decant tailings solution, tailings solids, and supernatant pond fluids must be specified as to a set schedule.
 - 14-26 8. The monitoring and mitigation plan for drawdown effects on perennial streams and springs must be much more complete. Table 2-9 sets out only vague and generalized concepts, even concluding that "(I)f initial implementation were unsuccessful, NDWR or BLM may require implementation of additional measures." A complete and defensible plan to deal with the

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- 14-19 Please see the response to comment 1-33.
- 14-20 All tailings and heap leach fluids would be managed to ensure there is no unpermitted discharge to the environment. Currently, BMG contemplates using forced evaporation to manage any draindown. This method is the basis for the bond cost estimate submitted by BMG to the BLM. Final selection and details of a draindown management method would be included in a final closure plan required by BMG's state water pollution control permit 2 years prior to decommissioning of all facilities, including the tailings facility. The final closure plan would contain a more refined estimate of draindown solution volumes and water quality than is available prior to facility construction and operation.
- 14-21 Please see the response to comment 14-20.
- 14-22 Sections 3.2.2.1 (Water Quality Impacts) and 3.2.4 (Monitoring and Mitigation Measures) of the Final EIS have been modified to address the potential for acid rock drainage from roadways and other disturbed areas.
- 14-23 The discussion of monitoring in Section 2.4.21.16, Monitoring of the Reclaimed Site, also references the Water Resources Monitoring Plan and the Contingent Long-term Groundwater Management Plan. A more complete discussion of proposed water resources monitoring programs and additional monitoring to be required by the BLM is included in Section 3.2.4 of the Final EIS.
- 14-24 Additional detail regarding the proposed monitoring and mitigation plans is provided in Section 3.2.4 of the EIS; detailed descriptions of the monitoring and mitigation plans are provided in the technical documents cited in Section 3.2.4.
- 14-25 The proposed schedule for sampling of the tailings fluids is specified in mitigation measure WR-8 in Section 3.2.4 of the EIS.
- 14-26 Mitigation measure WR-3 (Section 3.2.4) specifies that if surface water and ground water monitoring indicate that flow reductions have occurred or are likely to occur, BMG would be responsible for preparing a detailed site-specific plan to enhance or replace the affected perennial water resources. It is important to understand that the predicted impacts to flows discussed in the EIS were based on the results of numerical ground water modeling. Because of the simplified assumptions used in these types of models, it is not possible to predict with certainty which perennial water sources would or would not be impacted. In recognition of the model uncertainty, and the fact that highly variable conditions exist across the area, a comprehensive monitoring plan (Water Resources Monitoring Plan, Brown and Caldwell 2000e) and supplemental monitoring and mitigation measures WR-1, WR-2 and WR-3, would be used to provide early detection of impacts (or potential impacts) to ground water and surface water resources. These monitoring data would provide the basis for development of site-specific plans to address the hydrogeologic and hydrologic conditions of the affected water resource.

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- 14-26 highly probable, indeed predicted, loss of perennial stream reaches and springs must be included in the FEIS.
- 14-27 9. The monitoring and mitigation plans for waste rock storage areas (as well as pits, heap leach facilities, and tailings) degradation of groundwater must be clearly and completely specified given the extreme likelihood of such degradation. Table 2-9 merely refers to possible and vague measures.
- 14-28 10. Due to the high likelihood of any ponded waters on the tailings facilities to have low pH and contain elevated metals that would be toxic to waterfowl and wildlife, there must be a detailed and stringent plan to monitor these waters, as well as a plan to prevent wildlife or waterfowl from coming in contact with such ponded waters. A recent example from the Tyrone mine in New Mexico, where over 100 bird remains were found in tailings ponds, clearly shows the danger presented by such toxic waters in an arid area.
- 14-29 11. The foundation conditions in the South Optional Use Area must be determined rather than assumed to be similar to other areas (Sec. 3.1.2, page 3.1-23).
- 14-30 12. Since there have been 2 earthquakes in the area since 1900 (Table 3.1-1) greater than the Operational Basis Earthquake, the statement on page 3.1-24 that "the potential for catastrophic failure of the heap leach facility during a major seismic event is unknown" is totally insufficient, and even blatantly disregarding the BLM's responsibility to prevent undue and unnecessary degradation.
- 14-31 13. In Sec. 3.1.2.2 the geotechnical stability of the tailings and tailing embankments is **not** discussed in the section labeled as such. The fact that they are not lined is an obvious problem in light of groundwater pollution, however, their stability must be discussed in this section.
- 14-32 14. Due to the "potential for ultimately undermining the toes of (these) facilities in some locations" (Sec. 3.2.2.1, page 3.1-25) in reference to the exposure of waste rock facilities from pit wall breakdown, the very real potential for acid generating materials to become exposed must be completely dealt with. (See discussion on page 3.1-26 of this very issue under the No-Action alternative).
- 14-33 15. Under Sec. 3.1.4, the statement that "Designs for Tailings Area #3 and for facilities that could be constructed in the South Optional Use Area ... were not available for review as part of the EIS" demands that the DEIS be redone when the information is complete and the public and BLM have the ability to evaluate the impacts of the actions. It is totally indefensible to evaluate such major components of the proposed plan with out such complete and detailed plans.
- 14-34 16. The G-2 part of Sec. 3.1.4 is a good scoping comment, it is not acceptable as a DEIS monitoring and mitigation measure discussion. As discussed above (point #14) the potential for damage to existing and proposed waste rock facilities from pit slope failures is fairly expected by the BLM, therefore a complete and detailed discussion of how such damage will be prevented must be included in the FEIS.
- 14-35 17. The following statement appears in section 3.2.1.2, on page 3.2-7: "The resulting data **probably** form a **reasonable** characterization of typical surface water conditions in the study area. Precipitation amounts historically have varied considerably in the region, and this is true of the period when the field efforts were conducted." (emphasis added) The next paragraph goes on, "Springs and seeps in the region were inventoried in the summer and fall of 1995 and monitored periodically during 1996. For this evaluation, it was assumed that any spring or seep with recorded flows during the month of August, September, or October

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- 14-27 Table 2-9 in the EIS is a summary table of all predicted project impacts and the monitoring and mitigation measures designed to address them and was not meant to provide comprehensive information. Details regarding monitoring and mitigation are provided in Section 3.4.2 of the EIS.
- 14-28 The text of mitigation measure W-8 in Section 3.5.4 of the Final EIS has been expanded to indicate the full array of mitigation measures to be implemented to prevent wildlife exposure to potentially toxic water sources in the tailings impoundment.
- 14-29 The South Optional Use Area is located in the same general geologic setting (alluvial fan) as the existing adjacent tailings facilities. Therefore, it is reasonable to assume, for the purpose of the EIS analysis, that the general foundation conditions are likely to be similar to the adjacent facilities (Golder Associates 2000a). Regardless of the assumptions used in the EIS, mitigation measure G-1 was developed by the BLM to ensure that prior to constructing any process facility within the Optional Use Area, a geotechnical investigation must be performed and an appropriate design developed to demonstrate that facilities constructed in this area would be stable during both the operation and postclosure periods.
- 14-30 The statement referenced in the comment refers to the fact that a seismic deformation analysis was not available for review for the proposed expansion of the Heap Leach Pad. The BLM addressed this issue in mitigation measure G-1 in the Draft EIS, which required that a "...deformation analysis would be performed on the Reona Heap Leach Facility and the design would be modified, if necessary, to demonstrate that this facility would not fail during a Maximum Credible Earthquake." After the Draft EIS was completed, the additional geotechnical analyses for the Reona Heap Leach Facility identified in mitigation measure G-1 was completed and incorporated into the Final EIS as discussed in response to comment 3-23.
- 14-31 As summarized in Section 2.3.2, under the No Action alternative, existing facilities (including the tailings facilities) would be closed and reclaimed in accordance with current permits and applicable federal and state closure and reclamation requirements. Planned reclamation measures for the tailings include surface recontouring and revegetation. The reclamation design is intended to reduce infiltration and minimize erosion of reclaimed slopes to promote long-term physical stability of the tailings.
- 14-32 Mitigation measure G-2 in Section 3.1.4 provides for measures to minimize potential impacts to adjacent facilities associated with potential long-term slope instability in the pit walls.
- 14-33 Conceptual design information was reviewed, and the BLM believes that enough information was available to adequately evaluate the impacts of the proposed facility relative to other alternatives. Mitigation measure G-1 further requires BMG to provide detailed geotechnical stability information for BLM review and approval.
- 14-34 As stated previously, Mitigation measures G-2 in Section 3.1.4 provides for measures to mitigate potential impacts to adjacent facilities associated with potential long-term slope instability of the pit walls. Under mitigation measure G-2, the final setback distance of any facility would be modified as necessary to minimize potential risk to these facilities during both operation and postclosure periods. This would include either modifications to the final pit rim location or adjusting the facility location to provide for adequate setback. Mitigation measure G-2 has been modified in the Final EIS to state that potential failures that occur to pit rims would, not should, be considered in determining the design setback distance near existing or proposed waste rock facilities.

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was perennial and dependent on ground water discharge. Conversely, springs that did not have reported flows during these late summer and early fall months were assumed to be ephemeral or intermittent.” MPC finds it astounding that at a site that has been mined for over 100 years, and considered for large expansions repeatedly under BLM FLPMA jurisdiction, that data on streams and springs is limited to basically one data point! The gathering of a defensible amount of baseline data is the very basis of rational decision making. The project must be denied until a more reasonable amount of baseline data on the ecologically critical resource of water in such an arid area is gathered.

The BLM failed to consider the requirements of recent Interior Department directives regarding the review of plans of operations:

On January 18, 2001, Interior Solicitor John Leshy released a Memorandum, co-signed by Interior Secretary Babbitt, to the Director of the BLM, under the subject heading “Use of Mining Claims for Purposes Ancillary to Mineral Extraction.” This Memorandum discusses the duty of the BLM to analyze mining and millsite claims when reviewing a proposed plan of operations, and the proper regulatory discretion over large-scale mining operations similar to the Phoenix Project, among other issues directly relevant to this case.

In particular, the Memorandum directs the BLM review whether the lode (and millsite) claims used for ancillary facilities such as a number of the waste rock dumps, tailings ponds and heap leach facilities, among others, are valid. In this case, the DEIS admits that many of such lode claims have been located upon lands that do not contain any “known or inferred mineable ore.” DEIS at ii-iii. *See also* Plan of Operations, Appendix A.

Therefore, the procedures for compliance with FLPMA and the Mining Law (including the discretion to deny the use of these lands for mining-related facilities) noted in that Memorandum, must be followed. The revised DEIS must detail how the BLM complied with all of the Memorandum requirements. In addition to the issues discussed in the Memorandum, the fact that such ancillary facilities will permanently result in an exclusion of other multiple uses of public lands calls into serious question the legality of approving such uses under FLPMA. *See Flynn, The 1872 Mining Law as an Impediment to Mineral Development on the Public Lands: A 19th Century Law Meets the Realities of Modern Mining*, 34 LAND AND WATER LAW REVIEW 301, 362-372 (1999). The BLM should also ascertain the amount of, and require, the payment of fair market value by the company for the use of public land not covered by valid claims. *See Id.* Furthermore, the Memorandum requires that the NEPA analysis in this case be redone so that it is based on the fact that these claims are likely invalid.

NEPA Violations:

1. The entire NEPA process for Phoenix Project was based on an erroneous assumption that all the lode and millsite claims were valid and could be legally used. However, these assumptions lack any support in the record and in fact is directly contradicted by the admission that the ancillary facilities are to be located on lode claims that do not contain “mineable ore.” Such “rights” limited the BLM’s discretion to protect public lands, for example, by locating mine facilities on nearby private lands.

As held by the Interior Department in the March 25, 1999 *Crown Jewel Mine Decision*, “selection of an alternative is valid only insofar as the unpatented mining claims and mill sites are valid.” *Decision* at 5. At Phoenix, this means that the BLM should have fully

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- 14-35 The text referenced was modified in the Final EIS to delete the word “probably.” Baseline water resource studies used to support the EIS included an inventory (description, flow measurement, and water quality data) of all springs, seeps and perennial streams located within the region surrounding the project. Stream flow data were collected over 2 or more years at most of the identified springs, seeps, and stream monitoring locations. The surface water baseline data were adequate to: (1) identify the surface water resources located throughout the region, and (2) identify surface water resources that could potentially be affected from mine-induced drawdown.

- 14-36 Please see the responses to comments 13-3, 13-46, and 13-47.

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reviewed the alternative of locating ancillary facilities off of public land. Indeed, the BLM must ensure the protection of public land from facilities proposed on invalid claims.

Even if the BLM is not **required** to locate ancillary facilities off public land, the failure to adequately review this alternative violates NEPA. The BLM also ignores that its primary duty is to “prevent unnecessary or undue degradation” of public lands. Moving ancillary facilities off federal lands will undoubtedly protect these lands.

2. The fact that the proposed action is designed such that the Project utilizes existing facilities is not a valid justification for rejecting a viable alternative. The Project applicant’s “design” is only a **starting point** for the BLM’s duty to review alternatives -- it cannot be a determinative factor in the analysis and selection of alternatives.

The consideration of alternatives is “the heart of the environmental impact statement.” 40 CFR § 1502.14. It is absolutely essential to the NEPA process that the decision-maker be provided with a detailed and careful analysis of the relative environmental merits and demerits of the proposed action and possible alternatives, a requirement that has been rightly characterized as the “the linchpin of the entire impact statement.” *NRDC v. Callaway*, 524 F.2d 79, 92 (2d Cir. 1975). “The existence of a viable but unexamined alternative renders an environmental impact statement inadequate.” *Resources Limited v. Robertson*, 35 F.3d 1300, 1307 (9th Cir. 1993) (*quoting Idaho Conservation League v. Mumma*, 956 F.2d 1508, 1519 (9th Cir. 1992)).

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The FEIS for this project really only considered one approach: Newmont/BMG’s proposal. The BLM created the illusion of alternatives in the FEIS by presenting variations of the company’s proposal. The BLM attempts to perpetuate the illusion by adding an “Agency preferred alternative” to the FEIS, which again is simply the applicant’s plan combined with various mitigation and other requirements the BLM apparently intends to impose on the company’s implementation of its plan. During the process, the only alternative that received serious consideration was the one proposed by the company.

By doing so, the BLM misapprehends the whole idea of an EIS. NEPA cannot be satisfied by analyzing alternatives that are merely versions of each other. The point of NEPA’s alternatives analysis is to compare the environmental impacts to public lands of different approaches to public land use. The critical off-public land or off-site facility alternatives were rejected due to vague references to costs associated with new facility construction.

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At a minimum, a full analysis of the reasons for rejecting reasonable alternatives on economic grounds should have been included. To satisfy NEPA, “[t]he agency must explicate fully its course of inquiry, its analysis and its reasoning.” *Dubois v. U.S. Department of Agriculture*, 102 F.3d 1273, 1287 (1st Cir. 1996). The FEIS does not satisfy this basic requirement. The agency has made no complete and independent analysis of the “cost” factors involved in rejecting various alternatives, or of the public interest, because it predetermined, without any independent analysis, that such costs were unacceptable based on only a cursory analysis. In this case, the record is lacking as to the specific economic considerations that forced the rejection (or selection) of alternatives.

This is contrary to both NEPA and the APA which require that an agency’s determinations be supported by factual information in the decision. “The agency must explicate fully its course of inquiry, its analysis and its reasoning.” *Dubois v. U.S. Department of Agriculture*, 102 F.3d 1273, 1287 (1st Cir. 1996). An agency decision must always have a rational basis that is both stated in the written decision and demonstrated in the administrative record accompanying the

14-37 Please see the response to comment 13-48.

14-38 Please see the response to comment 13-49.

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decision. Kanawha & Hocking Coal & Coke Co., 112 IBLA 365, 368 (1990). The decision must be made in a "careful and systematic manner." Edward L. Johnson, 93 IBLA 391, 399 (1986). The record must demonstrate a "reasoned analysis of the factors involved, made in due regard for the public interest." Alvin R. Platz, 114 IBLA 8, 15-16 (1990). Where, as here, BLM has made no analysis of the "cost" factors involved or the public interest because it predetermined that such costs were unacceptable, then BLM's decision is unreasonable.

Even if the BLM could rely on future "corrective action" to mitigate those predicted water quality concerns, which we believe it cannot do, BLM must adequately review these mitigation measures in the FEIS. NEPA requires that mitigation measures be reviewed in the NEPA process -- not in some future decision shielded from public scrutiny. "[O]mission of a reasonably complete discussion of possible mitigation measures would undermine the 'action-forcing' function of NEPA. Without such a discussion, neither the agency nor other interested groups and individuals can properly evaluate the severity of the adverse effects." Methow Valley, 490 U.S. 332, 352, 109 S.Ct. 1835, 1847 (1989).

14-39

NEPA regulations require that an EIS: (1) "include appropriate mitigation measures not already included in the proposed action or alternatives," 40 CFR §1502.14(f); and (2) "include discussions of: . . . Means to mitigate adverse environmental impacts (if not already covered under 1502.14(f))." 40 CFR § 1502.16(h). In addition, under 40 CFR §1505.2(c), the agency is required to: "State whether all practicable means to avoid or minimize environmental harm from the alternative selected have been adopted, and if not, why they were not."

According to the federal Council on Environmental Quality ("CEQ"), "[a]ny such measures that are adopted must be explained and committed in the ROD." Forty Most Asked Questions Concerning CEQ's National Environmental Policy Act Regulations, 46 Fed. Reg. 18026, 18036 (March 23, 1981). That has not been done in this case. Relying on unverified and as-yet undocumented and undeveloped mitigation measures fundamentally flaws the FEIS.

The BLM relies on vague, untested, and unproven mitigation measures:

The most egregious example involves the predicted violations of ground and surface water standards noted herein and in the DEIS. Failure to analyze, let alone briefly mention, substantive mitigation for the water quality problems violate CEQ NEPA regulations. See 40 CFR §§ 1502.14(f), 1502.16(h), and 1505.2(c). Unfortunately, these mitigations are just statements that Cortez or the government will review an issue later and submit an as-yet-undetermined study or plan. Such a process violates NEPA and cannot stand. For critical water quality mitigations, the DEIS simply states that Newmont/BMG and the BLM will review the issue after the close of the NEPA process (e.g., during future development of the water treatment plans, water and wildlife mitigations, etc.). Such after-the-fact review is impermissible.

Conclusions:

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1. The site is currently polluting surface and ground water and immediate action must be taken by BLM and NDEP.
2. The DEIS contains significant and numerous omissions and must be redone.
3. The no-action alternative is illegal and must not be permitted.
4. The proposed action is most likely illegal and must not be permitted.
5. An alternative which prevents surface and groundwater pollution must be analyzed.

14-39 Please see the response to comment 13-50.

14-40 Comments noted. Please see prior responses to comments in this letter addressing these "conclusions" in detail.

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6. There must immediately be established a financial surety sufficient to cover the extreme management and in perpetuity water treatment potentials of the site.

Thank you for the opportunity to comment. These comments are not conclusive, in that we ran out of time. Again, we reference and fully incorporate the comments of Great Basin Mine Watch, Sierra Club, and Western Shoshone Defense Project. If you have any questions please feel free to call. Also, please make sure you update your address list and send all correspondence on this project to our Durango, Colorado office.

Respectfully,

A handwritten signature in cursive script, appearing to read "Dan Randolph".

Dan Randolph
Southwest Circuit Rider